



NORTH CAROLINA  
**Turnpike Authority**

# 2010 ANNUAL REPORT

NORTH CAROLINA TURNPIKE AUTHORITY



# Message from the Secretary and Turnpike Executive Director

2010 has been a year of landmark advances in moving all six Turnpike Authority projects across North Carolina closer to reality. As highlighted on the following pages, we are continuing to meet major milestones in our efforts to give our travelers more transportation options and help ensure that funding is available for other improvements vital to North Carolina's mobility, economic development and overall quality of life.

Construction is now underway on the state's first modern toll road, the \$1 billion Triangle Expressway in Wake and Durham counties. Both the Triangle Parkway and Western Wake Freeway segments of the project are currently 40 percent complete and scheduled to open to traffic on schedule and under budget, in December 2011 and December 2012 respectively. The NC *Quick Pass*™ transponders that will be used to collect tolls will be available beginning in July 2011.

Meanwhile, we are rapidly closing in on obtaining environmental permits and completing the financing for our second project, the Monroe Connector/Bypass. The bids on this 20-mile, \$808 million bypass were opened in October, and the low bid was \$98 million below the engineer's estimate. We have completed \$234 million in financing, and construction is scheduled to begin in early 2011. We are also completing the final financial evaluations for the Mid-Currituck Bridge, the state's first large-scale transportation project under development as a public-private partnership. With a potential contribution of tens of millions in private equity, this long-awaited project could reach financial close and begin construction next year.

The Garden Parkway in Gaston County is now less than a year away from financial close and the start of construction, scheduled to open to traffic in 2015. Additionally, the Authority's two remaining projects, the Cape Fear Skyway and the Triangle Expressway Southeast Extension, continue to clear environmental hurdles as preliminary engineering is completed.

Consistent with Governor Perdue's call for greater governmental efficiencies, the Turnpike Authority continues to operate as a specialized business division within the North Carolina Department of Transportation. As such, we have taken steps to mitigate the effect of the current budget crisis and ensure that every measure of fiscal austerity is applied to the development and completion of these projects.

As always, we thank the General Assembly for its ongoing support in making this program a successful part of our efforts to meet North Carolina's growing transportation demands.

Sincerely,



Eugene A. Conti, Jr.  
Secretary  
North Carolina Department of Transportation



David W. Joyner  
Executive Director  
Turnpike Authority

## Triangle Expressway

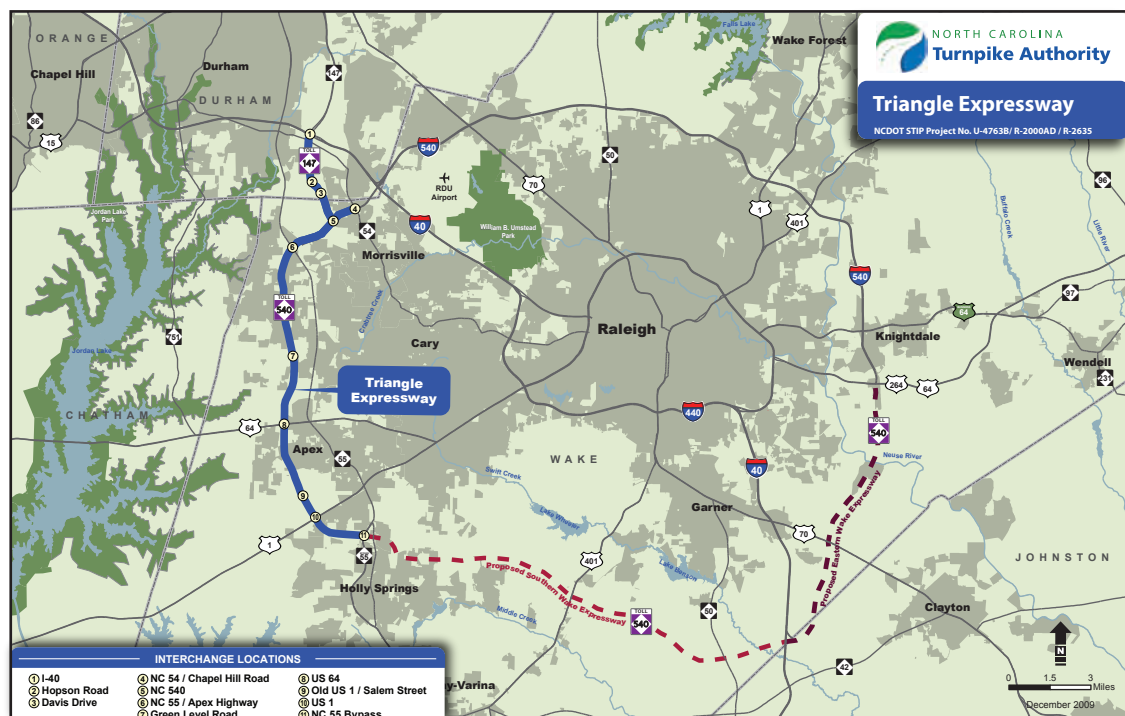
### Construction Status

Construction activities on the Triangle Expressway began in August 2009, and the project has been moving forward rapidly. Currently, the \$1 billion project is on schedule and under budget with its first section, the 3.2-mile Triangle Parkway, expected to open to traffic in December 2011. The second and longer section, the 12.6-mile Western Wake Freeway, is scheduled for completion in December 2012. The Authority has procured more than 90 percent of the project right of way, and the project's two design-build teams, Raleigh Durham Roadbuilders and S.T. Wooten Corporation, have completed 40 percent of construction. Once the Triangle Parkway opens to traffic, N.C. 540 between N.C. 55 and N.C. 54 will also be tolled as part of the Expressway.

### Toll Operations

The Triangle Expressway will incorporate all-electronic toll collection, which uses electronic transponders and video cameras to capture vehicle information and facilitate billing. The Turnpike Authority is the first toll agency in the nation to open a new project with an all-electronic collection system. The development of this toll collection system is vital to the success of the Authority's tolling program, as the same toll system under development for the Triangle Expressway will be used for all toll projects statewide.

Three contracts are in place to design, install and implement the all-electronic toll collection system on the Triangle Expressway. In a fiercely competitive bid process, the contracts awarded total \$37.6 million, nearly \$9 million below the engineer's estimate.





The contract for the roadside toll collection system was awarded to Affiliated Computer Services Inc. (ACS), a Xerox company. ACS is designing, developing and will install all toll-related hardware and software located on the roadway, as well as providing computer hardware, optical character recognition software and database software. Under the contract, ACS will also be responsible for maintaining the toll equipment and software. With the final design approved by the Authority, ACS is conducting final system programming and internal testing in preparation for factory acceptance testing scheduled for February 2011.

The contract for the back office toll collection systems was also awarded to ACS. Under this contract, ACS is designing, installing and implementing the hardware, software and telecommunication networks for customer account processing, video imaging and bill processing, and a fully-interactive customer account website. ACS will also provide maintenance of this equipment.

The third contract, which covers customer service operations, was awarded to URS Corporation. URS

is working closely with Turnpike Authority staff to manage the NC *Quick Pass*™ customer service facility and related activities. Construction of the customer service center, located in Morrisville, was completed this fall, and equipment installation is underway. URS plans to hire 15 employees in 2011 as the service center prepares for full operation later next year.

## Schedule Snap Shot

*Launch Sale of NC Quick Pass™*

*Transponder: July 2011*

*Open Triangle Parkway: December 2011*

*Open Western Wake Freeway: December 2012*



Local stakeholders choose the Regional Architectural theme as inspiration for the Monroe Connector/Bypass design guidelines.



## Monroe Connector/Bypass

The Monroe Connector/Bypass is a 19.7-mile toll highway that will run from U.S. 74 at I-485 in eastern Mecklenburg County to U.S. 74 near the Town of Marshville in Union County. A critical project for the greater Charlotte area, this \$808 million project will provide an alternative to the heavily congested U.S. 74 through Monroe, reducing the average motorist's commute by about 20 minutes. The Turnpike Authority is expecting to receive environmental permits needed for construction of the project before the end of this year. When the permits are issued, the Authority will complete the sale of bonds and award the construction contract for the project.

The Authority opened design-build bids for the project in October, all of which came in below the engineer's estimate. The low bid of \$367.7 million, \$98 million under the engineer's estimate, was submitted by a joint venture of United Infrastructure Group Inc., Boggs Paving Inc. and Anderson

Columbia Company Inc., teamed with lead design firm Rummel, Klepper & Kahl LLP. When financing is complete, the contract will be awarded and construction will begin. The project is expected to open to traffic in 2014.

In October, the N.C. Local Government Commission approved issuing \$234 million in bonds backed by the state's gap funds. The remainder of the bond offering consists of revenue bonds and subordinated bonds backed by the projected toll revenue as well as \$100 million in appropriation bonds. The sale of these bonds will follow the issuance of the environmental permits.

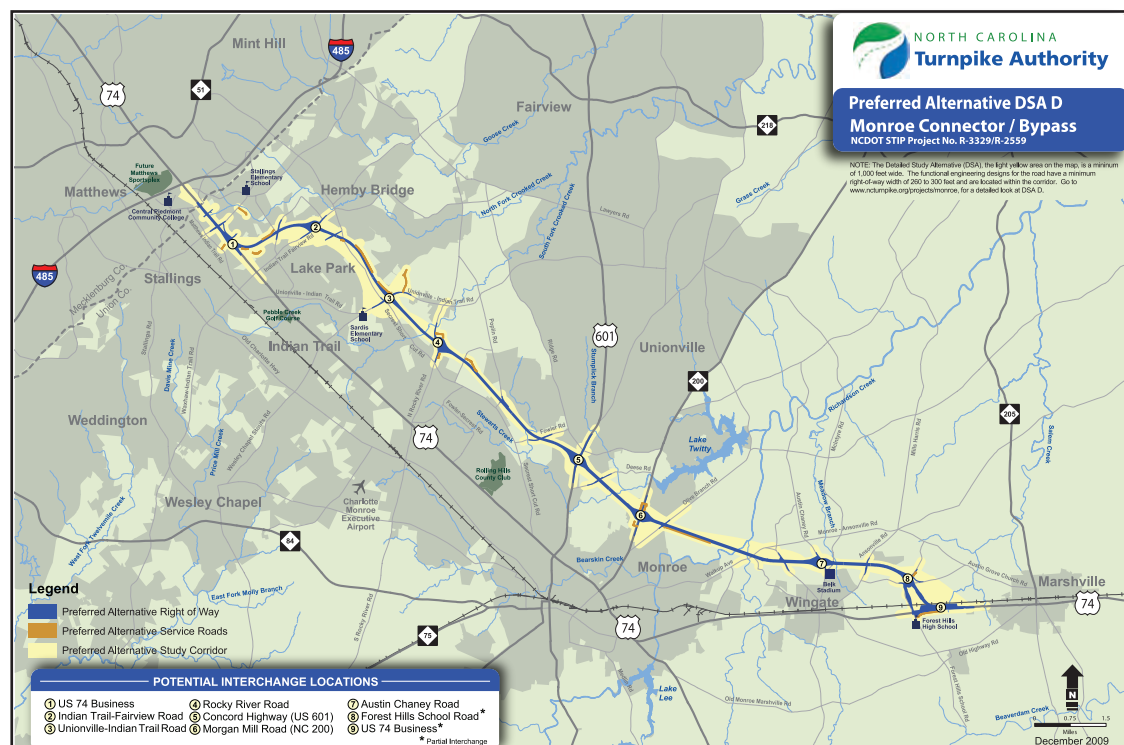
### Schedule Snap Shot

*Obtain Environmental Permits:* **December 2010**

*Complete Project Financing:* **December 2010**

*Begin Construction:* **2011**

*Open to Traffic:* **2014**





## Mid-Currituck Bridge

The Authority is making significant progress with the environmental studies and financial planning for the Mid-Currituck Bridge. The bridge, located in Currituck County, is a seven-mile, two-lane toll project crossing the Currituck Sound and connecting the mainland at U.S. 158 near Aydlett with N.C. 12 on the Outer Banks south of Corolla. The preliminary construction cost estimate for the project is between \$580 million and \$670 million, with final costs to be determined during design.

Since April 2009, the Authority has been working with the Currituck Development Group, LLC (CDG) on the development, design and financial assessment of the Mid-Currituck Bridge. Working under a pre-development agreement as part of a public-private partnership, potential capital cost savings of \$100 million have been identified to date. CDG and the Authority are now examining the feasibility of a joint venture to design, build, finance, operate and maintain the project. The Authority will determine over the next few months whether to proceed with the public-private partnership option or utilize municipal financing to build the project.

Since the March release of the project's Draft Environmental Impact Statement, the Authority

has been in discussions with state and federal environmental agencies regarding selection of a preferred alternative route. Refining the bridge project to address natural resource and community impact concerns raised in public and agency comments is a substantial part of the efforts related to these discussions. The Authority expects to adopt a preferred alternative early in 2011, to be followed by the release of the Final Environmental Impact Statement and a Record of Decision from the Federal Highway Administration.

The Authority is also preparing an investment-grade Traffic and Revenue Study for the project. The study is expected to be complete in 2011 and will provide revenue forecasts central to developing the plan of finance and receipt of investment-grade credit rating. Construction is currently scheduled to begin in 2011 with completion in 2014.

### Schedule Snap Shot

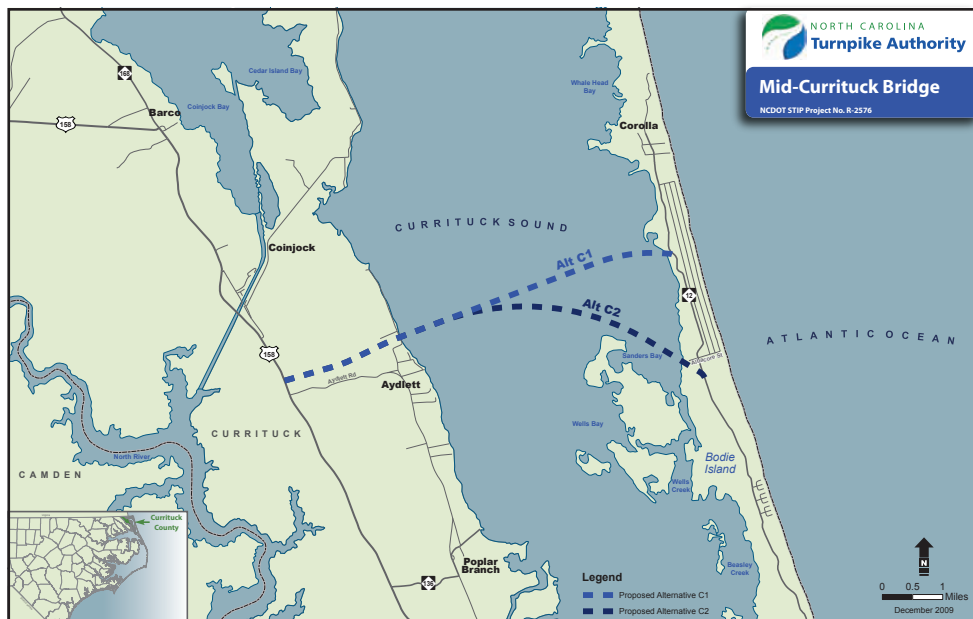
*Publish Final Environmental Impact Statement:* **2011**

*Record of Decision:* **2011**

*Complete Project Financing:* **2011**

*Begin Construction:* **2011**

*Open to Traffic:* **2014**







## Garden Parkway

The Turnpike Authority is progressing with the environmental studies and financial planning for the Garden Parkway, a new 22-mile toll road that will begin at the I-485 interchange near the Charlotte-Douglas International Airport at N.C. 160 in Mecklenburg County and continue west across the Catawba River into Gaston County, ending at I-85 west of Gastonia. The Authority plans to construct a four-lane highway from I-485/N.C. 160 in Mecklenburg County to U.S. 321, a distance of about 15 miles. A two-lane section (on four-lane right of way) is anticipated to be constructed for the remainder of the project and will be widened to four lanes when traffic levels warrant and additional funding becomes available.

The Authority is planning to issue a Request for Statements of Qualifications from interested design-build teams in early 2011 and short-list the teams in the spring of 2011. The Federal Highway Administration is expected to issue its Record of Decision, signifying final federal approval of the route, in early 2011.

The Authority is also conducting an investment-grade Traffic and Revenue Study for the project,

which will provide critical input for its plan of finance. The study is expected to be complete in second quarter 2011. Financial closing, as well as the awarding of contracts and beginning of construction, is also expected in 2011.

The preliminary cost estimate for the project is \$930 million. The plan of finance includes appropriation bonds backed by gap funds approved by the General Assembly, as well as toll revenue bonds and subordinated bonds backed by the projected toll revenue. In preparation for the issuance of bonds, the Authority will seek credit ratings from the rating agencies and prepare the final plan of finance and offering documents for approval by the Authority's Board of Directors in 2011.

### Schedule Snap Shot

*Final Environmental Impact*

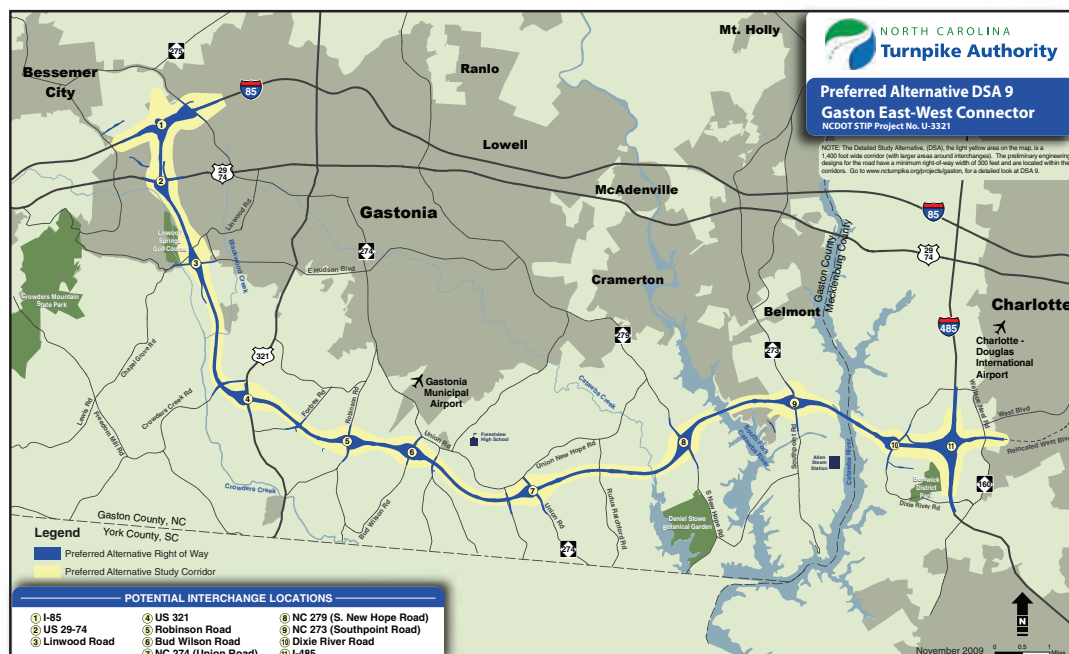
*Statement: December 2010*

*Record of Decision: 2011*

*Complete Project Financing: 2011*

*Begin Construction: 2011*

*Open to Traffic: 2015*







## Cape Fear Skyway

The Turnpike Authority continues to prepare environmental and design studies for the Cape Fear Skyway in Brunswick and New Hanover counties. The project, estimated to cost between \$950 million and \$1.1 billion, will run approximately 9.5 miles from the U.S. 17 Bypass to U.S. 421 near Wilmington and includes a new high-rise bridge over the Cape Fear River.

Over the past few months, the Authority has held several meetings with representatives from the Federal Highway Administration, other units of NCDOT and the Wilmington Urban Area Metropolitan Planning Organization (MPO) to identify and document the transportation needs this project would address. The Wilmington Urban Area MPO is updating its Long Range Transportation Plan, and the Authority is coordinating efforts to develop

a sound foundation for the project's studies. Official Transportation Corridor maps have been developed and used by the Wilmington MPO, Brunswick County and New Hanover County to adopt a protected corridor for project.

The Authority expects to complete its environmental studies in 2013. Once funding is secured, the project is estimated to take five years to construct.

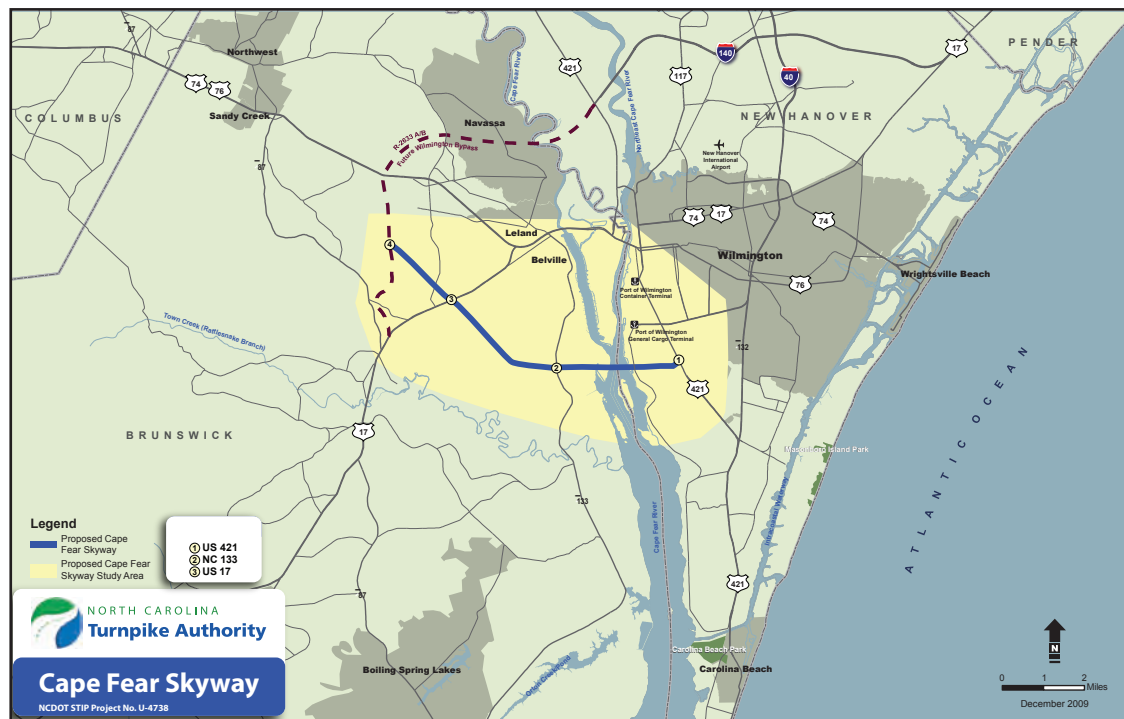
### Schedule Snap Shot

*Complete environmental study process:* **2013**

*Complete financial feasibility:* **To be determined**

*Begin construction:* **To be determined**

*Open to traffic:* **To be determined**





## Triangle Expressway Southeast Extension

In January, the Turnpike Authority began studying the Triangle Expressway Southeast Extension, which will span nearly 30 miles through southeastern Wake County from the N.C. 55 Bypass in Holly Springs to the U.S. 64/264 Bypass in Knightdale. It would also complete the southern and eastern portions of the Raleigh Outer Loop.

The project is anticipated to be constructed in two phases. Phase 1 would run from the N.C. 55 Bypass in Holly Springs to I-40 near the Wake/Johnston County line. Phase 2 would continue the project at I-40 and end at the U.S. 64/U.S. 264 Bypass in Knightdale. A protected corridor for Phase 1, which protects its anticipated route from future development, was established in the mid-1990s. The Authority will evaluate the protected corridor, as well as other possible routes, as a required part of the study process.

Preliminary alternative routes for both phases were displayed to the public this fall. Following an active public comment period, the Authority was able to eliminate three routes from consideration. The Authority will continue to analyze issues raised by public comment over the next several months and expects to identify the most reasonable routes for the project early next year. Potential impacts of the remaining routes will be documented in the Draft Environmental Impact Statement. The Authority expects to complete the environmental planning process in 2013 and once funding is secured, the project is expected to take five years to construct.

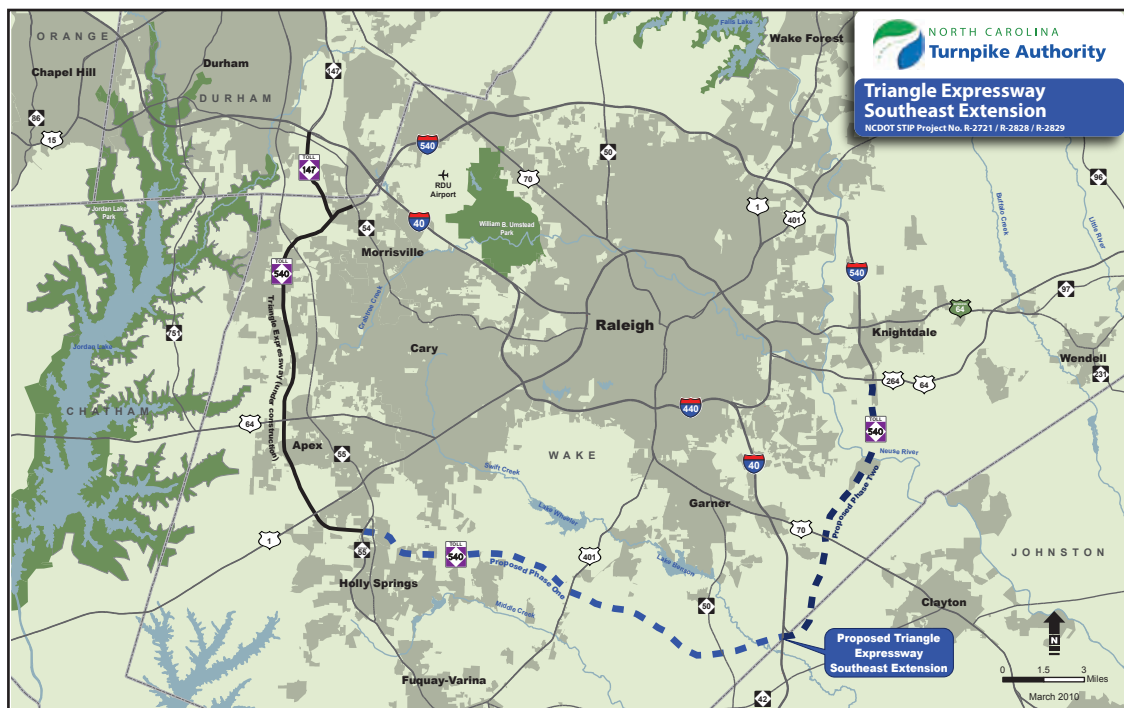
### Schedule Snap Shot

*Complete environmental study process:* **2013**

*Complete financial feasibility:* **To be determined**

*Begin construction:* **To be determined**

*Open to traffic:* **To be determined**



## NC Tolling Program — NC *QUICK PASS*™

After extensive study, the Turnpike Authority adopted NC *Quick Pass*™ as the name for its statewide electronic tolling program. The Authority has completed detailed marketing plans and schedules for educating the public on using North Carolina toll roads and participating in the NC *Quick Pass*™ program. These plans center on ensuring that motorists are equipped with radio frequency identification devices called transponders. The NC *Quick Pass*™ program is the most cost-efficient method of collecting tolls; therefore, motorists will be incentivized to purchase a transponder with a pre-paid account that will automatically deduct their tolls at the lowest possible rate. Customers who choose not to set up an account will have a picture of their license plate taken and the customer will be sent a bill in the mail.

The Authority has located its main NC *Quick Pass*™ customer service center at 200 Sorrell Grove Church Road in Morrisville, NC. Back office system tolling equipment is being installed at the center at this time, and the service center is expected to open in July 2011 when NC *Quick Pass*™ transponders will go on sale statewide. The transponders will be available online at [www.ncquickpass.com](http://www.ncquickpass.com).



# Leading Toll Interoperability Efforts

## Alliance for Toll Interoperability

As the United States continues to rely more on tolling to expand and maintain highway systems, toll interoperability and toll enforcement are becoming pressing issues. North Carolina was faced with a major challenge in opening its first all-electronic toll (AET) system in 2011, with several additional AET projects planned across the state. Geographically, North Carolina sits between two mature toll programs, encompassing more than 2.5 million transponder customers, which function with two incompatible technologies. The North Carolina Turnpike Authority responded to this challenge by procuring recently released dual protocol readers and transponders that will allow North Carolina to be compatible with both the E-ZPass (to the north) and SunPass (to the south) programs. Dual protocol readers are a step forward in interoperability; however, they are not a full solution.

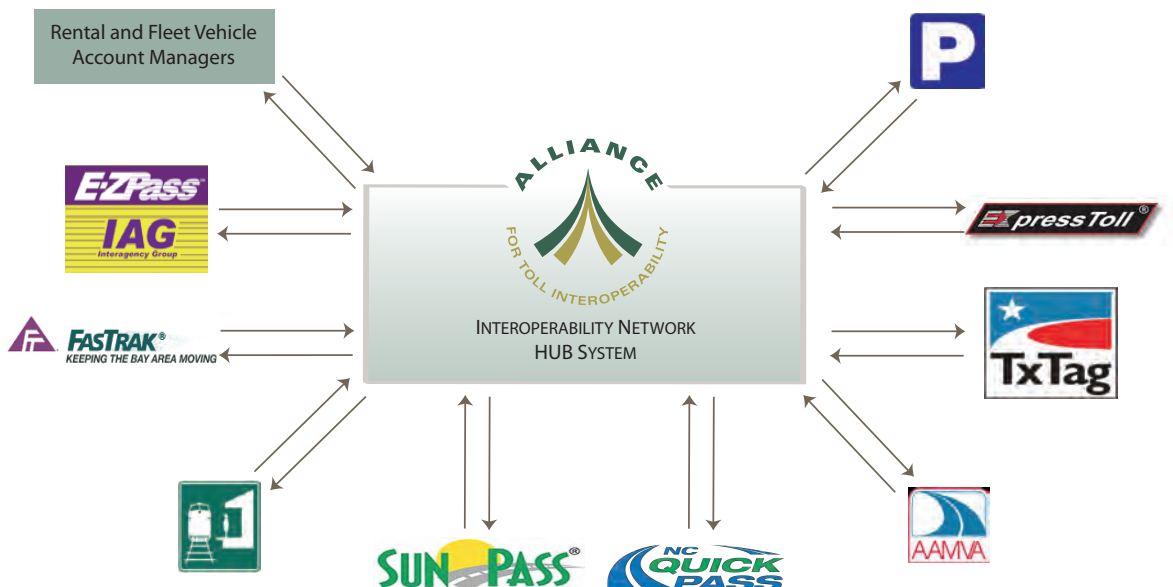
Video technology will play an integral role in the collection of tolls from out-of-state drivers, as will a strong reliance on interfaces with toll programs across North America, departments of motor vehicles and other license plate databases.

In 2008, the Authority led the toll industry in founding the Alliance for Toll Interoperability (ATI), an organization of more than 40 toll authorities focusing on establishing a HUB system in which Division of Motor Vehicles can interface with toll authorities without the requirement of establishing separate connections with each individual agency. The efforts of ATI open the door to full interoperability.

The Authority is actively pursuing the necessary agreements with other agencies to meet the goal of having full interoperability in place for the majority of states along the I-95 Corridor prior to the opening of the Triangle Expressway.

## International Bridge, Tunnel and Turnpike Association Conference

In October, the Authority took on a leadership role in establishing industry trends when it hosted a national tolling conference in Raleigh entitled *Operating and Maintaining Your Toll Facility—Where the Rubber Meets the Road*. The conference was attended by more than 150 toll operations professionals from around the world.





# Budget Overview

Fiscal Year 2007 through Fiscal Year 2011

Current Projects	FY07 (k)	Actual		FY10 (k)	Total	Actual/Budget by Project
		FY08 (k)	FY09 (k)		APW/Budget FY11 (k)	
Triangle Expressway	3,526.9	7,541.1	6,538.7	867.7	—	18,474.4
Monroe Connector/Bypass	424.1	3,314.6	4,057.7	5,490.1	7,745.3	21,031.8
Garden Parkway	1,111.5	3,159.6	2,096.3	6,233.5	10,832.9	23,433.8
Mid-Currituck Bridge	1,152.3	2,300.7	4,737.4	7,172.9	9,176.3	24,539.6
Southern Wake Expressway	—	—	188.0	5,081.0	6,724.7	11,993.7
Cape Fear Skyway	575.5	1,213.8	1,267.6	1,234.2	3,080.7	7,371.8
Other Projects	26.4	0.2	119.6	—	2,047.5	2,193.7
<b>Total</b>	<b>6,816.7</b>	<b>17,530.0</b>	<b>19,005.3</b>	<b>26,079.4</b>	<b>39,607.4</b>	<b>109,038.8</b>
<b>Administrative Actual/Budget</b>	<b>3,934.6</b>	<b>3,623.6</b>	<b>3,802.8</b>	<b>3,314.0</b>	<b>4,406.7</b>	<b>19,081.7</b>
<b>Total APW</b>	<b>10,751.3</b>	<b>21,153.6</b>	<b>22,808.1</b>	<b>29,393.4</b>	<b>44,014.1</b>	<b>128,120.5</b>

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